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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/922,220	08/03/2001	Israel Rubinstein	0178.0049US1	8917
29127                      7590                      05/04/2010 HOUSTON ELISEEVA 4 MILITIA DRIVE, SUITE 4 LEXINGTON, MA 02421				
EXAMINER ALEXANDER, LYLE				
ART UNIT		PAPER NUMBER		
1797				
MAIL DATE		DELIVERY MODE		
05/04/2010		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

09/922,220

**Applicant(s)**

RUBINSTEIN ET AL.

**Examiner**

LYLE A. ALEXANDER

**Art Unit**

1797

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 March 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 331-349 and 360-376 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 331-349 and 360-376 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/ISA-92)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

***Election/Restrictions***

1. Applicant's traverse of the 9/09/09 election by original presentation in the reply filed on 3/5/10 is acknowledged. The traversal is on the ground(s) that the Office has not shown the two groups are independent and distinct. This is not found persuasive because on page 2 of the 9/09/09 restriction requirement the analysis is performed and the two groups are related as "subcombination usable together in a single combination." This analysis states the subcombinations are distinct if they do not overlap in scope and if at least one of the subcombinations is separately usable. The sensor, relating to claims 350-359 is only directed to metallic islands deposited on a transparent surface. The remaining limitations in claim 350 are directed to the method of intended use of the sensor and are of no patentable moment. Claims 331-349 and 360-367 all require additional method steps and structures, such as a source for generating the electromagnetic radiation, a detector, etc. that are not in the scope of claim 350.

The requirement is still deemed proper and is therefore made FINAL.

***Claim Rejections - 35 USC § 102***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 331-349 and 360-367 are rejected under 35 U.S.C. 102(a,b) as being clearly anticipated by Bowen et al. (USP 4,802,761).

Bowen et al. teach a method and apparatus for analyzing samples by Raman spectroscopy (SERS or SERRS). A substrate contains metal sol particles and is placed

in contact with the sample where analytes attaches to the particles. Column 5 teaches Laser and monochromator are tuned in the range of 220-900 nm to create a Plasmon resonance phenomenon that is quantified by a detector. Column 6 line 19 teaches the metals selected for the island include silver and copper which are identical to the claimed metals. Column 6 lines 55-65 teach algorithms are used to compare the spectra to quantitatively/qualitatively identify the analytes. Column 9 lines 33-41 teach use of Raman standards to ensure calibration which has been read on the claimed first structure and first measurement (e.g. this measurement is a blank where the reading is made in the absence of the analyte). Column 9-10 lines 60-38 respectively teach the analyte is absorbed or associated with the metal sol particles which have been read on the second measurement.

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 368-376 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bowen et al.

See Bowen et al. supra.

These references are silent to assembling all of the required components into a kit.

It is well settled that combination of prior art elements according to known methods to yield predictable results. The cited prior art teaches all of the claimed elements and the combination of all of these elements into a kit to

perform the well known, expected and predictable results would have been within the skill of the art. Additionally, it would have been within the skill of the art to assembly all of the components required to perform a known assay in a kit as a matter of commercial expedience.

It would have been within the skill of the art to modify Bowen et al., Krull (USP 5,449,918)[cited by Applicants] or JP 20003565587 [cited by Applicants] and supply all of the required components in a kit to achieve the well known and expected results or to gain the advantage of commercial expedience.

### ***Response to Arguments***

Applicant's arguments filed 3/5/10 have been fully considered but they are not persuasive.

Applicant traverses the application of Bowen et al. stating the portions cited 09/09/09 Office action have very little to do with the instant invention. Applicant state Bowen et al. does not teach detecting the change in transmitted EM radiation between two surface plasmons -- the first have a blank surface and the second a surface that has been contacted with the sample. The instant claims are sufficiently broad to have been properly read on Bowen et al. that teaches making a blank measurement and a second measurement after contact with the sample. Specifically, column 9 lines 33-41 teach contacting the cell with a cleaning solution and has been read on the claimed "... forming a second structure by contacting the first structure by a substance..." where the

claimed "substance" is the cleaning solution. The two measurements are subtracted and the concentration of the analyte of interest is determined. The Office maintains that Bowen et al. have been properly applied and the rejections of record are proper.

Applicant state Bowen et al. do not teach measuring a difference between two different surface plasmon resonances. The Office maintains Bowen et al. teach in column 8 lines 34-41 teaches one of the method of Raman spectroscopy include measurements of surface plasmon resonance of metalloid complexes. The Office has read this as teaching any of the taught Raman Spectroscopy techniques include plasmon resonance of metalloid complexes.

Applicants' remarks concerning Krull and JP were convincing and these rejection have been vacated.

The Office maintains the 35 USC 102 rejection over Bowen et al. is proper as well as the 35 USC 103 rejections.

2. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

1. Any inquiry concerning this communication or earlier communications from the examiner should be directed to LYLE A. ALEXANDER whose telephone number is (571)272-1254. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lyle A Alexander/  
Primary Examiner, Art Unit 1797